

Federal Agency Name: U.S. Environmental Protection Agency, Office of Water, Office of Science and Technology

Funding Opportunity Title: FY 2007 Nutrients Benefits Valuation

Announcement Type: Request for Proposals

Catalogue of Federal Domestic Assistance (CFDA): 66.436

Funding Opportunity Number: EPA-OW-OST-2007-01

DATES: Hard copy proposals must be received by EPA (see Section IV.G. of this RFP) by **5:30**

P.M. EDT Tuesday, May 1st, 2007, or by electronic submission through Grants.gov by **11:59**

P.M. EDT Tuesday, May 1st, 2007. Late proposals will not be considered for funding.

Questions must be submitted in writing via e-mail and must be received by the Agency Contact identified in Section VII before **Wednesday, April 18th, 2007**. Written responses will be posted on EPA's website at: <http://www.epa.gov/waterscience/criteria/nutrient/grants/>

SUMMARY: The U.S. Environmental Protection Agency (EPA) is accepting proposals from eligible applicants to conduct projects that will improve the application of empirical methodologies to the economic valuation of the benefits from reducing nutrient levels in the nation's water bodies. The goal of this solicitation is to aid States in their attempts to estimate monetary benefits associated with nutrient reductions as they strive to adopt numeric nutrient criteria into their State water quality standards. This goal is tied to Goal 2 of EPA's 2006-2011 Strategic Plan (available at <http://www.epa.gov/ocfo/plan/plan.htm>), Clean and Safe Water: Objective 2.2: Protect Water Quality, Sub-objective 2.2.1: Improve Water Quality on a Watershed Basis, which is to "use pollution prevention and restoration approaches to protect the quality of rivers, lakes, and streams on a watershed basis."

This announcement describes the selection and award process for eligible applicants interested in applying for the FY 2007 Nutrient Benefits Valuation funding opportunity. The total amount of funding available under this announcement is approximately \$500,000, depending on Agency funding levels and other applicable considerations. It is anticipated that approximately one to two awards will be made. The project period for agreements awarded under this announcement may be up to two years. States and local governments, federally recognized Indian Tribes, territories and possessions of the U.S. (including the District of Columbia), interstate agencies or intertribal consortia, public or private non-profit, non-governmental institutions, and individuals are eligible to apply. Funds will be awarded pursuant to Section 104(b)(3) of the Clean Water Act (CWA), 33 U.S.C §1251 et seq.

I. FUNDING OPPORTUNITY DESCRIPTION

A. Background

Nutrients have consistently ranked as one of the top five causes of use impairment in U.S. waters for more than a decade. Excess levels of the nutrients nitrogen and phosphorus can lead to significant water quality problems including eutrophication, harmful algal blooms, hypoxia, and declines in wildlife and critical habitat. Furthermore, the control of nutrient loadings can also

produce ancillary benefits, such as reductions in the amount of sediment and human pathogens entering waterways.

State water quality standards provide the environmental baselines for their water quality programs. Water quality standards define the goals for a water body by designating its uses, setting criteria to protect those uses, and establishing provisions to protect water quality from pollutants. Designated uses describe the essential services provided by a given water body. The most common designated uses are: aquatic life support; recreational uses such as swimming, fishing, and boating; fish consumption; and drinking water supply. Water quality criteria are developed to protect these designated uses, and they can be either numeric concentration limits or narrative requirements.

Selecting numeric concentrations to serve as criteria for nutrients is inherently difficult because of the complex processes by which nutrients affect water quality. The adverse effects of nutrients are dependent on numerous in-stream factors and therefore the use of laboratory tests with individual species (as is traditionally done for toxic pollutants) is not effective for criteria development. The adverse effects of nutrients also tend to vary based on regional and seasonal conditions, and these effects are ultimately expressed at the level of the ecosystem. Due to the complexity and scale of the problem, most States currently have incorporated only narrative nutrient criteria into their standards.

The CWA requires States and Tribes to review their standards at least once every three years, and revise them if appropriate. Despite narrative nutrients criteria in States' water quality standards, nutrients consistently rank as a top five cause of impairment. Thus, EPA has been encouraging States to adopt numeric criteria into their water quality standards for nutrients. In 2001, EPA published recommendations for numeric nutrient water quality criteria for lakes and reservoirs, rivers and streams, and wetlands. These criteria are for nitrogen and phosphorus, as well as the response variables chlorophyll a and water clarity (by regulation, States can develop their own criteria as long as they protect the designated uses of their water).

Furthermore, EPA developed these recommended numeric nutrient criteria on an ecoregional scale. These ecoregions are the result of a classification system, developed by EPA, that is based on similarities of natural geographic features and land use patterns. Important features considered when creating the ecoregions were variations in: geology, physiography, vegetation, climate, soils, wildlife, and hydrology. There are 14 nutrient ecoregions for the conterminous 48 States. The 14 nutrient ecoregions are aggregations of EPA's 84 level III ecoregions, where the characteristics affecting nutrient levels are expected to be similar (for details, see <http://www.epa.gov/waterscience/criteria/nutrient/ecoregions/#docs> and http://www.epa.gov/waterscience/criteria/nutrient/database/select_ecoregion.html). Although EPA developed its recommended numeric nutrient criteria at this scale, EPA also has encouraged States to consider further subdividing these ecoregions when deriving their own criteria, if doing so would be more protective.

EPA used a reference condition approach for deriving its recommended ecoregion-based numeric nutrient criteria. Reference conditions for a water body or set of waters reflect minimal human impact. Reference conditions can be based on an assemblage of data from reference sites that represent the least-impacted condition for a particular water body type in an ecoregion, subecoregion, or watershed. A characterization of the reference condition provides a basis for developing criteria that are protective of designated uses, but EPA also recommends the consideration of historical data and expert judgment. For additional information, see websites and documents referenced in Section VIII.D.

Some States have developed or are now in the process of developing their own numeric nutrient criteria. These numeric criteria must be incorporated into State water quality standards before they are legally binding as State law. In developing its recommended ecoregional nutrient criteria, EPA's intention was to represent water quality conditions that are minimally impacted by human activities and are protective of designated uses. This is a scientific determination and does not take into account costs or technical feasibility. However, many States have legal requirements to analyze and/or consider the economic consequences of adopting new water quality standards. Regardless, EPA regulators require that States must hold a public hearing prior to submitting a revision of water quality standards to EPA for approval, and economic issues are usually anticipated and raised in these hearings. The regulated community, comprising municipalities, publicly owned treatment works (POTWs), and industrial facilities that discharge nutrients, are generally concerned with the costs of meeting new standards. The broader public is generally concerned with benefits of new standards, but the diffuseness of their interests often results in far less information being available on the benefits of meeting new standards. In short, the compliance costs for regulated entities are normally much easier for a State to assess than the potential benefits from adopting the standards.

However, State agencies charged with developing standards and facilitating their adoption into state regulations, often lack the staff time and funding required to do a complete analysis of benefits. To assist State lawmakers and the general public in being better informed, State environmental agencies need to be able to accurately characterize the economic value of environmental benefits associated with achieving water quality standards for nutrients. A thorough assessment of these benefits associated with numeric nutrient standards would apply a production function approach, documenting the direct linkage between excess nitrogen and phosphorus in the water and a loss of ecological goods and services provided to society, and provide a monetary estimate of benefits from restoring these services.

The typical approach to estimating economic value of environmental benefits of a government environmental program or policy, adopted largely for reasons of practicality, is to estimate benefits for a program as the sum of the effect-by-effect benefits (US EPA, 2000, EPA-240-R-00-003, Chapter 7), rather than as a single estimate of the benefits of the program taken as whole. For example, the former approach was taken to support EPA's 2002 Confined Animal Feeding Operations (CAFO) rule, where benefits were separately estimated for the following categories: recreation, fish kills, commercial shell fishing, drinking water source protection, and livestock production (US EPA, 2002, EPA-821-R-03-003). One reason for this approach is that different

methods for analyzing benefits are applied to different effects. Another advantage of the effect-by-effect approach is that it can provide decision makers information on individual benefit categories, such as human health effects.

States that use an effect-by-effect approach to estimate the benefits of adopting numeric nutrient criteria into standards will need to: identify the effects that would be affected by meeting numeric nutrients criteria; quantify these effects; relate these effects to changes in services provided to the public using an ecological production function; and estimate the value of improvements in these services. Various methods can be used for valuing these improvements in services, such as: market methods, revealed preference, stated preference and benefits transfer. Market methods rely on a direct link between environmental quality and the supply and/or demand of a market good or service; where applicable, market methods are generally easy to apply. For example, the benefits from improvements in commercial shellfish harvests can be readily measured using data on harvests and sales. However, benefits from increased recreation must be measured through the latter three non-market methods, which require more extensive analysis. The three non-market methods are most used when benefits not associated with market behavior are important, as is usually the case with the effects of nutrient reductions. It is these non-market benefits that are most likely to be missing from State benefit estimates, and EPA places a high priority on helping States develop analyses that include non-market benefits.

Revealed preference analyses infer individuals' willingness-to-pay from observations of their behavior in markets that are indirect indicators of the value associated with an environmental service. Stated preference analyses directly estimate willingness-to-pay through various survey techniques. Both revealed and stated preference methods can be time intensive as they require primary data collection. State agencies generally do not have the time and resources to perform primary data collection to make the case for water quality standards adoption.

Benefits transfer relies not on primary data collection but makes use of secondary data contained in existing studies. Benefits from existing studies (the study area) are used to predict benefits in previously unstudied situations (the policy area). Relying on existing studies reduces the time and resources needed to develop benefit estimates for a proposed regulatory change. As a result, benefit transfer is often employed by policymakers. However, there can be drawbacks associated with the benefits transfer method.

One drawback is that the existing study areas may not match well with the policy area. For example, existing studies may value the recreation benefits of increased fish populations due to more favorable fish habitat when nutrient levels are reduced. Even if the intent is to derive a value for recreational benefits of increased fish populations in the policy area, the transfer approach will be weak if there is limited overlap in the fish species or genus between the study and policy areas. A mismatch in effects would also limit the transferability, as might be expected if existing studies focus on recreational benefits of increased fish populations while the effect that is intended to be valued is improved aquatic habitat.

Another drawback can occur even if there is a good match between study areas and the policy area. In this example, the study area values may be for improved aquatic life support for a similar set of species as the policy area, but the information recorded with the existing studies may be inadequate to allow researchers to conduct a meta-analysis across studies, whereby they can control for the relative contribution of nutrient levels in each of the studies to their valuation estimates. That is, the individual studies may only report changes in intermediate parameters such as dissolved oxygen, and fail to report the levels of key causal variables in ecological production functions, such as changes in levels of nutrients or Biological Oxygen Demand (BOD). This information may not necessarily have been presented to respondents in order to elicit their valuation of improved services. However, this information is necessary to allow for these variables to be controlled for in a meta-analysis. This problem may also be a concern for studies producing valuations covering a set of water quality problems, such as harmful algal blooms combined with reduced aquatic habitat.

In summary, EPA has developed recommended nutrient criteria for States using an ecoregion-based reference condition approach. EPA suggests States follow this approach to develop their own numeric nutrient criteria. Some States have recognized the need to develop benefit estimates for adopting numeric nutrient standards and have established appropriate reference conditions (for examples, see Section VIII.D). When estimating the economic value of environmental benefits, EPA recommends that States first identify all nutrient-related effects, and then focus economic valuation efforts on those effects that are quantifiable and that may prevent State waters from attaining designated uses.

B. Program Objectives

EPA is accepting proposals from eligible applicants to conduct projects that will improve the application of empirical methodologies to the economic valuation of the benefits of improved water quality resulting from reducing nutrient levels in the nation's water bodies.

An important scientific effort for EPA's Office of Water is developing improved methods to assess and value ecological benefits that result from improvements in water quality. EPA is supporting studies that estimate the monetary value of cleaner water for aquatic life and other ecological and recreational benefits, such as swimming, and will use this information to help States develop more precise estimates of the benefits of water pollution control programs and requirements. Project proposals submitted for this announcement must propose studies that estimate the economic value of ecological benefits associated with the reduction of nutrients to water. Proposals that use a production function approach, where changes in stressors are linked to changes in ecological goods or services through an ecological production function are preferred; such production functions contribute to the transferability of values from one context to another.

The ultimate goal of this solicitation is to aid States in their attempts to estimate the economic value of environmental benefits associated with nutrient reductions as they strive to adopt numeric nutrient criteria into their State water quality standards. State water quality standards programs need help most with the economic valuation of non-market benefits associated with

nutrient reductions, since it is these non-market benefits that are most likely to be missing from State benefit estimates. The absence of these non-market benefits from cost-benefit analysis hinders the ability of State policy makers to make informed decisions with regard to water quality standards and other environmental policy matters. Therefore, EPA places a high priority on helping States develop analyses that include non-market benefits.

Proposals must describe how the proposed project's approach demonstrates relevance to helping States develop estimates of the monetary benefits associated with nutrient reductions that would result from the adoption of numeric nutrient criteria. Proposals submitted by applicants should attempt to identify all nutrient-related effects, and focus economic valuation efforts on those significant effects that are quantifiable and that may prevent waters from attaining designated uses. The most common nutrient-related effects are diminished aquatic habitat resulting from hypoxia or ammonia toxicity, loss of recreational services, or human health impacts from harmful algal blooms. Proposal should demonstrate that the project will be comprehensive in how it addresses these effects of nutrients within the study area. The proposal must describe how the project directly addresses one or more significant effects that can result from excess nutrients, why these are considered significant effects, and how these significant effects relate to the existing designated uses. Proposals should demonstrate that the proposed project's scope is large enough to address one of the EPA defined nutrient ecoregions or an area of comparable scope. Proposals will also describe how the proposed methodology will lead to empirical results that can be transferred to other ecoregions and/or refined to use for subcoregions or classes of water bodies by a State. Proposals should describe study outputs, such as reports and workshops, which would help convey these results to States who are within the ecoregion or subcoregion. If applicants choose to make use of existing studies when estimating economic valuation of non-market benefits, they must only consider existing studies where a causal link between excessive nutrient loadings and a reduction in ecological goods and services is drawn by an ecological production function.

In summary, proposed projects should:

- lead to empirical results relevant to State water quality standards program efforts to incorporate numeric nutrient criteria into their water quality standards;
- include a comprehensive assessment of all nutrient-related effects on the waters of the study area;
- focus on impairments that are directly associated with nutrient enrichment and that have the potential to prevent waters from attaining their designated uses;
- focus on nutrient related effects that when addressed produce non-market benefits that are quantifiable;
- demonstrate that the proposed project's scope is large enough to address one of the EPA's defined nutrient ecoregions, a subcoregion, or an area of comparable scope;
- only consider existing studies where a causal link between excessive nutrient loadings and a loss of environmental services can be demonstrated, if applicants choose to use existing studies; and
- include a methodology that uses an ecological production function approach or otherwise

leads to empirical results that can potentially be transferred to empirical applications for other ecoregions and/or refined to use for subcoregions or classes of water bodies by the State.

C. Statutory Authority

Funding will be in the form of cooperative agreements or grants for projects that lead to empirical estimates of the benefits of reducing nutrients levels. The statutory authority for awards made under this announcement is Section 104(b)(3) of the CWA. Section 104(b)(3) of the CWA restricts the use of these assistance agreements to the following: conducting or promoting the coordination and acceleration of research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects (including health and welfare effects), extent, prevention, reduction, and elimination of water pollution. Demonstrations must involve new or experimental technologies, methods, or approaches, and it is encouraged that the results of the project will be disseminated so that others can benefit from the knowledge gained in the demonstration project. A project that is accomplished through the performance of routine, traditional, or established practices, or a project that is simply intended to carry out a task rather than transfer information or advance the state of knowledge, however worthwhile the project might be, is not considered a demonstration project. Implementation projects used to fund ongoing programs or administrative activity are not eligible for funding under this announcement.

D. EPA's Strategic Plan and Anticipated Environmental Results

EPA is soliciting proposals under this announcement that will assist States in their attempts to estimate monetary benefits associated with nutrient reductions as they strive to adopt numeric nutrient criteria into their State water quality standards. These efforts to assist State water quality standards programs in turn support Goal 2 of EPA's 2006-2011 Strategic Plan (available at <http://www.epa.gov/ocfo/plan/plan.htm>), Clean and Safe Water: Objective 2.2: Protect Water Quality, Sub-objective 2.2.1: Improve Water Quality on a Watershed Basis, which is to "use pollution prevention and restoration approaches to protect the quality of rivers, lakes, and streams on a watershed basis."

All proposed projects must describe how the project will develop economic value estimates for ecological benefits associated with nutrient reductions. This description must include specific statements describing the environmental results of the proposed project in terms of well-defined outputs, and, to the maximum extent practicable, well-defined outcomes that demonstrate how the project will assist State water quality standards programs in their efforts to characterize the benefits of adopting numeric nutrient criteria into water quality standards.

Expected environmental outputs (or deliverables) refer to an environmental activity, effort, and/or associated work product related to an environmental goal or objective, that will be produced or provided over a period of time or by a specified date. Outputs may be quantitative or qualitative but must be measurable during an assistance agreement funding period.

Anticipated *outputs* from the projects funded under this announcement are research results

intended to give an answer to these key questions:

- If current nutrient loadings were reduced to meet numeric nutrient criteria for a given ecoregion, or subecoregion, what would be the estimated benefits to society of this reduction?
- Which of the non-market benefits are quantifiable? [By their very nature, market benefits are quantifiable.]
- What is the estimated monetary value of the quantifiable non-market benefits?
- How might state water quality standards programs use these monetized benefit estimates to support efforts to characterize the benefits of adopting numeric nutrient criteria into standards?

Examples of anticipated environmental outputs from the projects funded under this announcement include, but are not limited to:

- A summary report of all identified non-market benefits for improvements in aquatic habitat for an EPA nutrient ecoregion or subecoregion;
- A summary report of all identified non-market benefits for improvements in recreational opportunities within an EPA nutrient ecoregion or subecoregion;
- Monetized non-market benefit estimates for improvements in aquatic habitat for an EPA nutrient ecoregion or subecoregion;
- Monetized non-market benefit estimates for improvements in recreational opportunities within an EPA nutrient ecoregion or subecoregion;
- Meta-analysis of existing benefits studies that are relevant to an EPA nutrient ecoregion or subecoregion;
- A copy of all data used and generated for the project; and
- A workshop for States that contain a nutrient ecoregion or subecoregion, to show how empirical results from study could be applied to State cost-benefit analyses.

Environmental outcomes are the result, effect, or consequence that will occur from carrying out an environmental program or activity that is related to an environmental or programmatic goal or objective, and are used as a way to gauge a project's performance and take the form of output measures and outcome measures. Outcomes must be quantitative and may not necessarily be achieved within an assistance agreement funding period. Outcomes may be short term (changes in learning, knowledge, attitude, skills), intermediate (changes in behavior, practice, or decisions), or long-term (changes in condition of the natural resource).

Examples of anticipated outcomes from the projects funded under this announcement include, but are not limited to:

- Increased adoption of numeric nutrient criteria into water quality standards for States that are in the ecoregion or subecoregion used for the project study area;
- The use of study results for benefit transfer to estimate the economic value of nutrient reductions in another ecoregion or subecoregion;
- Replication of project study design for additional benefit studies conducted for other nutrient ecoregions; and

- A wider application of the research results to produce monetary values of the benefits to society, and the necessary conditions for such an application to be feasible.

As part of the Statement of Work, an applicant will be required to describe how the project will result in the protection of water resources and link the outcomes to the Agency's Strategic Plan. Additional information regarding EPA's discussion of environmental results in terms of "outputs" and "outcomes" can be found at: <http://www.epa.gov/ogd/grants/award/5700.7.pdf> or <http://www.epa.gov/water/waterplan/documents/FY06NPGappendix-b.pdf>.

II. AWARD INFORMATION

EPA anticipates awarding approximately \$500,000 under this announcement, depending on Agency funding levels and other applicable considerations. It is anticipated that approximately one to two awards will be made. The project period for agreements awarded under this announcement may be up to two years.

In appropriate circumstances, EPA reserves the right to partially fund proposals by funding discrete portions or phases of proposed projects. If EPA decides to partially fund a proposal, it will do so in a manner that does not prejudice any applicants or affect the basis upon which the proposal, or portion thereof, was evaluated and selected for award, and therefore maintains the integrity to the competition and selection process.

EPA reserves the right to make no awards under this announcement, or make fewer awards than anticipated. In addition, EPA reserves the right to make additional awards under this announcement, consistent with Agency policy, if additional funding becomes available. Any additional selections for awards will be made no later than six months after the original selection decisions.

Grants and/or cooperative agreements may be awarded under this solicitation. Where appropriate, based on consideration of the nature of the proposed project, the EPA will fund cooperative agreements under this announcement. When cooperative agreements are awarded, EPA will have substantial involvement with the project. Although EPA will negotiate precise terms and conditions relating to substantial involvement as part of the award process, cooperative agreements permit substantial involvement between the EPA Project Officer and the selected applicant in the performance of work supported by grant funds. Federal involvement for projects selected may include: close monitoring of the recipients performance; collaboration during the performance of the scope of work; data and information exchange; review of proposed procurements; reviewing qualifications of key personnel (EPA does not have authority to select employees or contractors employed by the recipient); and/or review and comment on content of publications (printed or electronic) prepared under the cooperative agreement (the final decision on the content of reports rests with the recipient). **Proposals should not identify EPA cooperators or interactions; specific interactions between EPA and the prospective recipient for cooperative agreements will be negotiated at the time of award.**

III. ELIGIBILITY INFORMATION

A. Eligible Applicants

States, local governments, territories, Indian Tribes, and possessions of the U.S. (including the District of Columbia); public and private universities and colleges; hospitals; laboratories; public or private nonprofit institutions; intertribal consortia; and individuals are eligible to apply. Non-profit organizations described in Section 501(c)(4) of the Internal Revenue Code that engage in lobbying activities as defined in Section 3 of the Lobbying Disclosure Act of 1995 are not eligible to apply.

Interstate agencies and intertribal consortia are eligible for funding under this competition. The term “interstate agency” is defined in CWA Section 502 as “an agency of two or more States established by or pursuant to an agreement or compact approved by the Congress, or any other agency of two or more States, having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator.” Intertribal consortia must meet the requirements of 40 CFR Part 35.504.

Non-profit applicants may be asked to provide documentation that they meet the definition of a non-profit organization in OMB Circular A-122. Interstate agencies may be asked to provide a citation to the statutory authority, which establishes their status. Intertribal consortia may be asked to provide documentation that they meet the requirements of 40 CFR Part 35.504.

B. Cost Sharing or Matching Requirements

No cost share or match is required. However, projects with voluntary matching funding or in-kind contributions are encouraged and will be evaluated accordingly under the Section V.A “Project Leveraging” criterion. The match may be provided in cash or by in-kind contributions and other non-cash support. In-kind contributions often include salaries or other verifiable costs and this value must be carefully documented. In the case of salaries, applicants may use either minimum wage or fair market value. Match must be for allowable project costs. Matching funds are considered grant funds and are included in the total award amount and must be used for the reasonable and necessary expenses of carrying out the Statement of Work. All grant funds are subject to Federal audit. Any restrictions on the use of grant funds (examples of restrictions are outlined in Section VI.F of this announcement) also apply to the use of matching funds. Other Federal grants may not be used as matches or cost shares without specific statutory authority.

C. Threshold Eligibility Criteria

These are requirements that if not met by the time of proposal submission will result in elimination of the proposal from consideration for funding. Only proposals that meet all of these criteria will be evaluated against the ranking factors in Section V of the announcement. Applicants deemed ineligible for funding consideration as a result of the threshold eligibility review will be notified within 15 calendar days of the ineligibility determination.

1. An applicant must meet the eligibility requirements in Section III.A of this announcement.

2. Proposals must be for projects that improve water quality by conducting or promoting the coordination and acceleration of research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, reduction, and elimination of water pollution. Demonstrations must involve new or experimental technologies, methods, or approaches, and it is encouraged that the results of the project will be disseminated so that others can benefit from the knowledge gained in the demonstration project. A project that is accomplished through the performance of routine, traditional, or established practices, or a project that is simply intended to carry out a task rather than transfer information or advance the state of knowledge, however worthwhile the project might be, is not considered a demonstration project. Implementation projects are not eligible for funding under this announcement.
3. Proposals must describe how the project addresses one or more significant effects that can result from excess nutrients, why these effects are considered significant, and how these effects relate to existing designated uses. Diminished aquatic habitat resulting from hypoxia or ammonia toxicity, loss of recreational services, and human health impacts from harmful algal blooms are examples of some common nutrient-related effects.
4. Proposals must describe how the proposed project's approach demonstrates relevance to helping States develop estimates of the monetary benefits associated with nutrient reductions that would result from the adoption of numeric nutrient criteria.
5. Proposals must substantially comply with the proposal submission instructions and requirements set forth in Section IV of this announcement or else they will be rejected. In addition, where a page limit is expressed in Section IV with respect to the proposal and/or parts of the proposal, pages in excess of the page limitation will not be reviewed.
6. Proposals must be received by EPA or submitted electronically through Grants.gov on or before the submission closing date and time published in Section IV of this announcement. Proposals received after the published closing date and time will be returned to the sender without further consideration.
Proposals submitted by U.S. Postal Mail will not be considered. EPA will not accept faxed submissions.

IV. APPLICATION AND SUBMISSION INFORMATION

A. Request for Application Packages

Grant application forms, including Standard Forms SF 424 and SF 424A, are available at http://www.epa.gov/ogd/grants/how_to_apply.htm and by mail upon request by calling the Grants Administration Division at (202) 564-5320.

B. Form of Application Submission

Applicants have the option to submit their proposals in **one** of two ways: 1) Electronically through the Grants.gov website or 2) hard copy and CD by express delivery service, hand delivery, or courier service to the EPA contact identified in Section VII. All proposals must be prepared, and include the information, as described in Section IV.C below, regardless of mode of submission.

1. Grants.gov Submission

Applicants who wish to submit their materials electronically through the Federal government's Grants.gov web site may do so. Grants.gov allows an applicant to download a proposal or application package template and complete the package offline based on agency instructions. After an applicant completes the required proposal or application package, it can submit the package electronically to Grants.gov, which transmits the package to the funding agency. Letters of support will need to be scanned so that they can be submitted electronically as part of the application package.

The electronic submission of your application must be made by an official representative of your institution who is registered with Grants.gov and is authorized to sign applications for Federal assistance. For more information, go to <http://www.grants.gov> and click on "Get Registered" on the left side of the page. *Note that the registration process may take a week or longer to complete.* If your organization is not currently registered with Grants.gov, please encourage your office to designate an AOR and ask that individual to begin the registration process as soon as possible.

To begin the application process under this grant announcement, go to <http://www.grants.gov> and click on the "Apply for Grants" tab on the left side of the page. Then click on "Apply Step 1: Download a Grant Application Package and Instructions" to download the PureEdge viewer and obtain the application package for the announcement. To download the PureEdge viewer click on the "PureEdge Viewer" link. Once you have downloaded the viewer, you may retrieve the application package by entering the Funding Opportunity Number, EPA-OW-OST-2007-01, or the CFDA number that applies to the announcement (CFDA 66.436), in the appropriate field. You may also be able to access the application package by clicking on the button "How To Apply" at the top right of the synopsis page for this announcement on <http://www.grants.gov> (to find the synopsis page, go to <http://www.grants.gov> and click on the "Find Grant Opportunities" button on the left side of the page and then go to Search Opportunities and use the Browse by Agency feature to find EPA opportunities).

Application Submission Deadline: Your organization's AOR must submit your complete application electronically to EPA through Grants.gov (<http://www.grants.gov>) no later than **11:59 P.M. EDT Tuesday, May 1st, 2007.**

Please submit *all* of the proposal/application materials described below. To view the full funding announcement, go to <http://www.epa.gov/waterscience/criteria/nutrient/grants/> or go to <http://www.grants.gov> and click on "Find Grant Opportunities" on the left side of the page and

then click on Search Opportunities/Browse by Agency and select Environmental Protection Agency.

Proposal materials submitted through Grants.gov will be time/date stamped.

How to submit your proposal through Grants.gov:

Applicants are required to submit three documents to apply electronically through Grants.gov: the Statement of Work, SF 424, and SF 424A. All three documents should appear in the “Mandatory Documents” box on the Grants.gov Grant Application Package page.

For the Statement of Work portion, you will need to attach electronic files. Prepare your Statement of Work as described in Section IV.C of this announcement and save the document to your computer as a Microsoft Word or PDF file. When you are ready to attach the Statement of Work to the application package, click on “Project Narrative Attachment Form,” and open the form. Click “Add Mandatory Project Narrative File,” and then attach your proposal narrative (previously saved to your computer) using the browse window that appears. You may then click “View Mandatory Project Narrative File” to view it. Enter a brief descriptive title of your project in the space beside “Mandatory Project Narrative File Filename,” the filename should be no more than 40 characters long. If there are other attachments that you would like to submit to accompany your proposal, you may click “add Optional Project Narrative File” and proceed as before. When you have finished attaching the necessary documents, click “Close Form.” When you return to the “Grant Application Package” page, select the “Project Narrative Attachment Form” and click “Move Form to Submission List.” The form should now appear in the box that says, “Mandatory Completed Documents for Submission.”

For the SF 424 and SF 424A, click on the appropriate form and then click “Open Form” below the box. The fields that must be completed will be highlighted in yellow. Optional fields and completed fields will be displayed in white. If you enter an invalid response or incomplete information in a field, you will receive an error message. When you have finished filling out each form, click “Save.” When you return to the electronic Grant Application Package page, click on the form you just completed, and then click on the box that says, “Move Form to Submission List.” This action moves the document over to the box that says, “Mandatory Completed Documents for Submission.”

Once you have finished filling out all of the forms/attachments and they appear in one of the “Completed Documents for Submission” boxes, click the “Save” button that appears at the top of the Web page. It is suggested that you save the document a second time, using a different name, since this will make it easier to submit an amended package later if necessary.

Please use the following format when saving your file: “Applicant Name - FY07 NUTRIENTS - 1st Submission.” If it becomes necessary to submit an amended package at a later date, then the name of the 2nd submission should be changed to “Applicant Name - FY07 NUTRIENTS - 2nd Submission.” Once your application package has been completed and saved, send it to your AOR

for submission to U.S. EPA through Grants.gov. Please advise your AOR to close all other software programs before attempting to submit the application package through Grants.gov.

From the “Grant Application Package” page, your AOR may submit the application package by clicking the “Submit” button that appears at the top of the page. The AOR will then be asked to verify the agency and funding opportunity number for which the application package is being submitted. If problems are encountered during the submission process, the AOR should reboot his/her computer before trying to submit the application package again. [It may be necessary to turn off the computer (not just restart it) before attempting to submit the package again.] If the AOR continues to experience submission problems, he/she may contact Grants.gov for assistance by phone at 800-518-4726 or e-mail at support@grants.gov, or contact Todd Doley by phone at 202-566-1160 or e-mail at doley.todd@epa.gov. If you have any other technical difficulties while applying electronically, please refer to <http://www.grants.gov/help/help.jsp>.

If you have not received a confirmation of receipt from EPA (*not from grants.gov*) within 30 days of the application deadline, please contact Todd Doley by phone at 202-566-1160 or e-mail at doley.todd@epa.gov. Failure to do so may result in your application not being reviewed.

2. Hard Copy and Compact Disc (CD) Submission

Two hard copies of the complete proposal package, as described in IV.C below, and an electronic version on a CD are required to be sent by express mail, courier service, or hand delivered. **Proposals submitted by U.S. Postal Mail will not be considered. EPA will not accept faxed submissions.** Electronic submissions may be in Adobe Portable Document Format (.pdf) or Microsoft Word (.doc). Letters of support will need to be scanned on the CD so that they can be submitted as part of the application package.

C. Content of Application Submission

The Statement of Work section must be limited to no more than fifteen (15) typewritten pages (a page is one side of a piece of paper) including the cover page. Additional pages will not be considered for funding. Supporting materials, such as resumes, letters of support, SF 424 and SF 424A forms can be submitted as attachments and are not included in the 15-page limit. Pages should be numbered for ease of reading. All proposal packages, regardless of how submitted, must include the following documentation.

- 1) Complete Statement of Work as described below.
- 2) Signed SF 424 and SF 424A.

Statement of Work Outline

Statement of Work narratives should be typewritten and must include the information listed below. If a particular item is not applicable, clearly state this.

1. **Cover Page (one page)** including:
 - a. **Project Title**
 - b. **Name of applicant**
 - c. **Principal Investigator(s):** Identify who will serve as the lead principal investigator;

- include a phone number and email address for all investigators.
- d. **Total Project Cost:** Specify the total project cost and total dollars requested from EPA, as well as any cost share or match.
 - e. **Abstract/project summary (recommend 75 words or less):** Brief description of proposed research approach, including direct reference to the specific program objectives (listed in Section I.B) addressed by the proposal.
2. **Project description containing:**
- a. **Project Plan:** Provide a project description including:
 - (i) a discussion of the specific question and approach; (ii) data, models, etc., necessary to complete the project and how these will be obtained; (iii) estimated time-line or schedule of expected target dates and milestones to achieve specific tasks and accomplishments during the budget and project period; and (iv) necessary tasks and activities that will be conducted to accomplish the objectives. Describe why you have chosen these activities to obtain the desired environmental results. The tasks and activities should be realistic and achievable within the budget and project period of the assistance agreement.
 - b. **Project Objective /Environmental Results Stated Objective / Link to EPA Strategic Plan:** List the objective of the program / project and describe the link to the EPA Strategic Plan, Goal 2 (see section I of this announcement).
 - i. **Results of Activities (Outputs)** - List the products/results which are expected to be achieved from accomplishment of the work plan activities and an approach for tracking your progress toward achieving the expected project output(s) (examples of outputs can be found in Section I of this announcement).
 - ii. **Projected Environmental Improvement (Outcomes)** - List what environmental improvements will be accomplished as a result of this program/project. These improvements are changes or benefits to the environment which result from the accomplishment of Statement of Work commitments and outputs. Describe your approach for tracking progress toward achieving anticipated outcome(s) of the project (examples of outcomes can be found in Section I of this announcement).
 - iii. **Project Approach** - Describe how the proposed project's approach demonstrates relevance to helping States develop estimates of the monetary benefits associated with nutrient reductions that would result from the adoption of numeric nutrient criteria into water quality standards.
 - 1. Describe the significant effects of nutrients within the study area that will be considered for the project, and describe why these effects are considered significant. Also, describe how these effects relate to the existing designated uses for the waters or classes of waters within the study area via an ecological production function for ecological goods and services.
 - 2. Describe how the proposed project's scope is large enough to address one of the EPA defined nutrient ecoregions, a subecoregion, or an area comparable in scope, and how the

proposed methodology uses an ecological production function or otherwise leads to empirical results that can be transferred to other ecoregions and/or refined to use for subecoregions or classes of water bodies by the State.

- iv. Environmental Results Past Performance - Briefly describe the federally and/or non-federally funded assistance agreements that your organization performed within the last three years and describe how you documented and/or reported on whether you were making progress towards achieving the expected results (i.e., outputs and outcomes) under those agreements. If you were not making progress, please indicate whether, and how, you documented why not. If you do not have any relevant or available environmental results past performance information, please indicate this in the proposal and you will receive a neutral score for this factor under Section V.
- c. Brief description of how the applicant anticipates the project results and/or methods will transfer to States, Tribes, local governments, watershed practitioners, and the public.
- d. Brief description of staffing and funding resources available to implement the proposed project including the number of workers, staff qualifications, and the extent to which it is a multidisciplinary (e.g. economists, aquatic ecologists, etc.) effort.
- e. Brief description of the applicant's organization and experience related to the proposed project, and the organization's infrastructure as it relates to its ability to successfully implement the proposed project.
- f. A detailed budget and estimated funding amounts for each work component/task. This section provides an opportunity for narrative description of the budget or aspects of the budget found in the SF 424A such as "other" and "contractual." Total costs must include both Federal and matching (non-Federal) components (if applicable).
- g. Briefly describe other federally and/or non-federally funded assistance agreements similar in size, scope and relevance to the proposed project that your organization performed within the last three years and describe: (i) whether and how you were able to successfully complete and manage those agreements; and (ii) your history of meeting the reporting requirements under those agreements including submitting acceptable final technical reports. If you do not have any relevant or available past performance or reporting information, please indicate this in the proposal and you will receive a neutral score for these factors under Section V.
- h. Opportunities for leveraging other sources of funding. Describe (i) how the applicant will coordinate the use of EPA funding with other Federal and/or non Federal sources of funds to leverage additional resources to carry out the proposed project(s) and/or (ii) how EPA funding will complement activities relevant to the proposed project(s) carried out by the applicant with other sources of funds or resources. Applicants may use their own funds or other resources for a match or cost share if the standards at 40 CFR 30.23 or 40 CFR 31.24, as applicable, are met. Only eligible and allowable costs may be used for voluntary matches or cost shares. Other Federal grants may not be used as matches or cost shares without specific statutory authority.

- i. Any support letters should specifically indicate how the supporting organization will assist in the project (not counted in page limit).

The Statement of Work should also provide any additional information, to the extent not already covered by above, necessary to evaluate the applicant under the criteria in Section V.

3. **Attachments:** The following three sections must be included as attachments to the Statement of Work and do not count in the 15-page limit.
 - a. **References:** Provide complete bibliographic citations for any works cited in the research plan.
 - b. **Resumes:** Provide resumes or curriculum vitae for all principal investigators, and any other key personnel.
 - d. **Quality Assurance Project Plan:** Include a description of how you will address data quality control issues. See Section VIII.A.

D. Submission Dates and Times

Proposal submissions sent by hard copy must be **received** by the Agency Contact identified in Section VII by **5:30 P.M. EDT Tuesday, May 1st, 2007**. Proposals submitted electronically through Grants.gov must be submitted by **11:59 P.M. EDT Tuesday, May 1st, 2007**. Late proposals will not be considered for funding. Questions must be submitted in writing via e-mail and must be received by the Agency Contact identified in Section VII before **Wednesday, April 18th**, and written responses will be posted on EPA's website at:
<http://www.epa.gov/waterscience/criteria/nutrient/grants/> .

E. Intergovernmental Review

If selected for award, applicants must comply with the Intergovernmental Review Process and/or consultation provisions of Section 204, Demonstration Cities and Metropolitan Development Act, if applicable, which are contained in 40 CFR Part 29. Applicants should consult the office or official designated as the single point of contact in his or her State for more information on the process the State requires to be followed in applying for assistance if the State has selected the program for review. Further information regarding this requirement will be provided if your application is selected for funding.

F. Confidential Business Information

In accordance with 40 CFR 2.203, applicants may claim all or a portion of their proposal as confidential business information. EPA will evaluate confidentiality claims in accordance with 40 CFR Part 2. Applicants must clearly mark proposals or portions of proposals they claim as confidential. If no claim of confidentiality is made, EPA is not required to make the inquiry to the applicant otherwise required by 40 CFR 2.204(c) (2) prior to disclosure.

G. Other Submission Information

Hard copy and compact disc submissions must be sent by express mail, courier service, or hand delivered to the following address:

U.S. Environmental Protection Agency
Office of Science and Technology, Engineering and Analysis Division
Attention: Todd Doley
EPA West Building
1301 Constitution Avenue, NW
Room: 6233Z
Washington, DC 20004

V. APPLICATION REVIEW INFORMATION

A. Selection Criteria

EPA will first review proposals to determine if they satisfy the threshold criteria described in Section III of this announcement. Proposals that meet all of the threshold criteria will then be evaluated and ranked based on the evaluation criteria and weights below (100 total point scale). Points will be awarded based on how well and thoroughly each criterion and/or sub-criterion is addressed in the proposal package.

1) Environmental Results (20 points)	<p>Proposals will be evaluated based on each of these sub-criterion:</p> <ul style="list-style-type: none"> (i) Extent and quality to which the proposal demonstrates potential environmental results (i.e., will the project result in the protection of water resources), anticipated outputs and outcomes, and how the outcomes are linked to EPA’s Strategic Plan. (10 points) (ii) Extent and quality to which the proposal demonstrates a sound plan for tracking and measuring progress toward achieving the expected outcomes and outputs (examples of outcomes and outputs can be found in Section I of this announcement). (5 points) (iii) Extent and quality to which the applicant has adequately documented and/or reported on their progress towards achieving the expected results (e.g., outcomes and outputs) under Federal agency assistance agreements performed within the last three years, and if such progress was not being made, whether the applicant adequately documented and/or reported why not. (5 points) <p>Note: In evaluating applicants under (iii) above, EPA will consider the information provided by the applicant and may also consider relevant information from other sources including Agency files and prior/current grantors (e.g., to verify and/or supplement the information supplied by the applicant). Applicants with no relevant or available past performance reporting history will receive a neutral</p>
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	score for this factor of 2.5 points.
2) Specific Statement of Work Elements (20 points)	<p>Proposals will be evaluated based on the following sub-criterion:</p> <ul style="list-style-type: none"> (i) Schedule or timeline of activities for the project. (4 points) (ii) The reasonableness of the budget and estimated funding amounts for each work component/task. Total costs must include both Federal and any voluntary matching (non-Federal) components (if applicable). Describe cost-effectiveness and reasonableness of costs. (6 points) (iii) How well the description of roles and responsibilities of the recipient and major partners addresses the work plan commitments defined in the proposal. (4 points) (iv) The effectiveness of the applicant's plan for how the project results and/or methods will transfer to States, Tribes, local governments, watershed practitioners, and the public. (6 points)
3) Project Leveraging (5 points)	<p>Under this criterion, applicants will be evaluated based on the extent and quality to which they demonstrate:</p> <ul style="list-style-type: none"> (i) How they will coordinate the use of EPA funding with other Federal and/or non Federal sources of funds to leverage additional resources to carry out the proposed project and/or how EPA funding will complement activities relevant to the proposed project carried out by the applicant with other sources of funds or resources. Applicants may use their own funds or other resources for a match or cost share if the standards at 40 CFR 30.23 or 40 CFR 31.24, as applicable, are met. Only eligible and allowable costs may be used for matches or cost shares. Other Federal grants may not be used as matches or cost shares without specific statutory authority. (5 points)
4) Project Approach (35 points)	<p>Under this criterion, applicants will be evaluated based the extent and quality to which the proposed project's approach demonstrates relevance to helping States develop estimates of the monetary benefits associated with nutrient reductions that would result from the adoption of numeric nutrient criteria.</p> <ul style="list-style-type: none"> (i) Extent and quality to which the proposal demonstrates that the project will lead to empirical results relevant to State water quality standards program efforts to

	<p>incorporate numeric nutrient criteria into their water quality standards; (10 points)</p> <p>(ii) Extent and quality to which the proposal demonstrates that the project will be comprehensive in how it addresses the effects of nutrients within the study area and how these effects relate to the existing designated uses; (5 points)</p> <p>(iii) Extent and quality to which the proposal demonstrates that the project will focus on significant nutrient impairments that have the potential to prevent waters from attaining their designated uses; (5 points)</p> <p>(iv) Extent and quality to which the proposal demonstrates that the project will focus on nutrient related effects that when addressed produce non-market benefits that are quantifiable; (5 points)</p> <p>(v) Extent and quality to which the proposal demonstrates that the proposed project's scope is large enough to address one of the EPA defined nutrient ecoregions, a subecoregion, or an area of comparable scope; and (5 points)</p> <p>(vi) Extent and quality to which the proposal uses an ecological production function approach or otherwise leads to empirical results that can be transferred to other ecoregions and/or refined to use for subecoregions or classes of water bodies by the State. (5 points)</p>
<p>6) Programmatic Capability/Past Performance (Technical Experience)/Qualifications and Experience (20 points)</p>	<p>Under this criterion, applicants will be evaluated based on their ability to successfully complete and manage the proposed project taking into account the following factors:</p> <p>(i) Past performance in successfully completing federally and/or non-federally funded projects similar in size, scope, and relevance to the proposed project within the last three years. (3 points)</p> <p>(ii) History of meeting reporting requirements on assistance agreements with Federal and/or non-Federal organizations within the last three years and submitting acceptable final technical reports under these agreements. (2 points)</p> <p>(iii) Organizational experience related to the proposed project and infrastructure as it relates to its ability to successfully implement the proposed project. (5 points)</p> <p>(iv) Staff expertise/qualifications, staff knowledge and multidisciplinary nature (e.g. economists, aquatic ecologists, etc.), and resources or the ability to obtain</p>

	<p>them, to successfully achieve the goals of the project. (10 points)</p> <p>Note: In evaluating applicants under (i) and (ii) above, the Agency will consider the information supplied by the applicant and may also consider relevant information from other sources including Agency files and prior/current grantors (e.g., to verify and/or supplement the information supplied by the applicant). Applicants with no relevant or available past performance information or reporting history will receive neutral scores for these factors (i.e., 1.5 points for item (i) and 1.5 points for item (ii)).</p>
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B. Review and Selection Process

All proposals received by EPA or submitted electronically through Grants.gov by the submission deadline will first be screened by EPA staff against the threshold criteria in Section III of the announcement. Proposals that do not pass the threshold review will not be evaluated further or considered for funding.

A panel of EPA staff will review eligible proposals based on the evaluation criteria listed in Section V.A and will develop a list of the most highly rated proposals to submit to the Selection Official. Final funding decisions will then be made by the Selection Official based on the review panel evaluations and programmatic priorities.

VI. AWARD ADMINISTRATION INFORMATION

A. Award Notices

All applicants, including those who are not selected for funding, will be notified by e-mail once decisions have been made. Final applications will be requested from those entities whose proposal has been successfully evaluated and preliminarily recommended for award. Those entities will be provided with instructions and a due date for submittal of the final application package.

EPA reserves the right to negotiate and/or adjust the final grant amount and Statement of Work prior to award, as appropriate and consistent with Agency policy including the Assistance Agreement Competition Policy, EPA Order 5700.5A1

(http://www.epa.gov/ogd/competition/5700_5A1.pdf). An approvable final Statement of Work is required to include:

1. Components to be funded under the assistance agreement;
2. Estimated work years and the estimated funding amounts for each component;
3. Commitments for each component and a timeframe for their accomplishment;
4. Performance evaluation process and reporting schedule; and
5. Roles and responsibilities of the recipient and EPA (for cooperative agreements only) in carrying out the commitments.

In addition, successful applicants will be required to certify that they have not been Debarred or Suspended from participation in Federal assistance awards in accordance with 40 CFR Part 32.

B. Administrative and National Policy Requirements

The general award and administration process for assistance agreements awarded under this announcement is governed by regulations at 40 CFR Part 30 (“Uniform Administrative Requirements for Grants and Agreements to Institutions of Higher Education, Hospitals, and Other Non-profit Organizations”) and 40 CFR Part 31 (“Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments”).

DUNS Number

Applicants are required to provide a Dun and Bradstreet Data Universal Numbering System (DUNS) number with the full application for Federal grants or cooperative agreements. Organizations can receive a DUNS number in one day, at no cost, by calling the dedicated toll-free DUNS Number request line at 1-866-705-5711.

C. Reporting Requirements

Project monitoring and reporting requirements can be found in 40 CFR Part 30.50-30.52, 40 CFR Part 31.40-31.41. In general, recipients are responsible for managing the day-to-day operations and activities supported by the grant or cooperative agreement to assure compliance with applicable Federal requirements, and for ensuring that established milestones and performance goals are being achieved. Performance reports and financial reports must be submitted quarterly and are due 30 days after the reporting period. The format for these reports will be identified during the grant application time frame, and will include reporting on established performance measures indicated in the project description (i.e., goals, outputs, and outcomes). The final report is due 90 days after the assistance agreement has expired.

D. Disputes

Assistance agreement competition-related disputes will be resolved in accordance with the dispute resolution procedures published in 70 FR (Federal Register) 3629, 3630 (January 26, 2005) which can be found at: <http://a257.g.akamaitech.net/7/257/2422/01jan20051800/edocket.access.gpo.gov/2005/05-1371.htm>. Copies of these procedures may also be requested by contacting the Agency Contact listed in Section VII of this announcement.

E. Administrative Capability Requirement

Non-profit applicants that are recommended for funding under this announcement are subject to pre-award administrative capability reviews consistent with Section 8b, 8c and 9d of EPA Order 5700.8 - Policy on Assessing Capabilities of Non-Profit Applicants for Managing Assistance Awards (http://www.epa.gov/ogd/grants/award/5700_8.pdf). In addition, non-profit applicants that qualify for funding may, depending on the size of the award, be required to fill out and submit to the Grants Management Office the Administrative Capabilities Form with supporting documents contained in Appendix A of EPA Order 5700.8.

VII. AGENCY CONTACT

Note to Applicants: EPA will respond to questions from individual applicants regarding threshold eligibility criteria, administrative issues related to the submission of the proposal, and requests for clarification about the announcement. Questions must be submitted in writing via e-mail and must be received by the Agency Contact identified below before **Wednesday, April 18th, 2007** and written responses will be posted on EPA's website at:

<http://www.epa.gov/waterscience/criteria/nutrient/grants/>. In accordance with EPA's Competition Policy (EPA Order 5700.5A1), EPA staff will not meet with individual applicants or discuss draft proposals, provide informal comments on draft proposals, or provide advice to applicants on how to respond to ranking criteria. Applicants are responsible for the contents of their proposals.

FOR FURTHER INFORMATION CONTACT:

Todd Doley
doley.todd@epa.gov
Phone: 202-566-1160
Fax: 202-566-1053

VIII. OTHER INFORMATION

A. Quality Assurance/Quality Control (QA/QC) and STORET

Certain quality assurance and/or quality control (QA/QC) and peer review requirements are applicable to the collection of environmental data. Environmental data are any measurements or information that describe environmental processes, location, or condition; ecological or health effects and consequences; or the performance of environmental technology. Environmental data also include information collected directly from measurements, produced from models, and obtained from other sources such as data bases or published literature. Regulations pertaining to QA/QC requirements can be found in 40 CFR Parts 30.54 and 31.45. Additional guidance can be found at http://www.epa.gov/quality/qa_docs.html#noeparqt.

Applicants should allow sufficient time and resources for this process in their proposed projects. If your organization does not have a Quality Management System in place, one must be developed. A project specific Quality Assurance Project Plan (QAPP) must be submitted and approved by EPA. Allow four to six months in your timeline for approval of these plans.

Additionally, recipients of assistance agreements for water monitoring projects will be encouraged to submit all data from monitoring activities to EPA's central data warehouse, the "STORET" (short for STOrage and RETrieval) database. STORET provides an accessible, nationwide central repository of water information of known quality. Recipient submission of monitoring data into STORET or monitoring data made available in the Advisory Council for Water Information (ACWI) Core Monitoring Data Element Standard (or Data Exchange

Template) will facilitate exchange of monitoring data between EPA and its partners. Information on STORET is at <http://www.epa.gov/storet> and information on the standard is at <http://www.epa.gov/edr>.

B. Data Sharing

All recipients of assistance agreements under this announcement will be required to share any data generated through this funding agreement as a defined deliverable in the final narrative statement.

C. Copyrights

EPA reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes in accordance with 40 CFR 31.34: (a) the copyright in any work developed under a grant, subgrant, or contract under a grant or subgrant; and (b) any rights of copyright to which a grantee, subgrantee or a contractor purchases ownership with grant support.

D. References

Additional information on EPA's recommended numeric nutrients water quality standards can be found at <http://epa.gov/waterscience/criteria/nutrient/>. Other Federal and State websites and electronically available documents related to the development of nutrient criteria follow.

Aquatic Life Use Support - Reference Condition
(<http://www.epa.gov/waterscience/biocriteria/alus/ref2.html>)

Guidance on the Development and Adoption of Nutrient Criteria
(<http://www.epa.gov/waterscience/criteria/nutrient/guidance/index.html>)

Minnesota Pollution Control Agency's Proposed Water Quality Standards Rule Revisions
(<http://www.pca.state.mn.us/water/standards/rulechange.html>)

Minnesota Lake Water Quality Assessment Report: Developing Nutrient Criteria
(<http://www.pca.state.mn.us/water/lakequality.html#reports>)

Nutrient and Chlorophyll Relations in Selected Streams of the New England Coastal Basins in Massachusetts and New Hampshire, June-September 2001
(<http://pubs.usgs.gov/wri/wri034191/html/intro.html>)

Virginia Lakes and Reservoirs
(http://www.deq.state.va.us/wqs/documents/LAKEGUIDANCE_002.pdf)

"Issues Related to Freshwater Criteria for Lakes and Reservoirs in Virginia"
(<http://www.vwrrc.vt.edu/publications/AAC-SR27-2005.pdf>)

A Literature Review for Use in Nutrient Criteria Development for Freshwater Streams and

Rivers in Virginia

(<http://www.vwrrc.vt.edu/publications/SR28-2006.pdf>)

Other References

Doering, Otto C., Francisco Diaz–Hermelo, Crystal Howard, Ralph Heimlich, Fred Hitzhusen, Richard Kazmierczak, John Lee, Larry Libby, Walter Milon, Tony Prato, and Marc Ribaud. 1999. *Evaluation of the Economic Costs and Benefits of Methods for Reducing Nutrient Loads to the Gulf of Mexico: Topic 6 Report for the Integrated Assessment on Hypoxia in the Gulf of Mexico*. NOAA Coastal Ocean Program Decision Analysis Series No. 20. NOAA Coastal Ocean Program, Silver Spring, MD. May 1999. 115 pp.

US EPA. 2000. *Guidelines for Preparing Economic Analyses*.
EPA 240-R-00-003 . September 2000.

(<http://yosemite.epa.gov/ee/epa/eed/nsf/webpages/Guidelines.html>)

US EPA. 2002. *Environmental and Economic Benefit Analysis of Final Revisions to the National Pollutant Discharge Elimination System Regulation and the Effluent Guidelines for Concentrated Animal Feeding Operations*.

EPA-821-R-03-003. December 2002.

(<http://cfpub2.epa.gov/npdes/afo/cafodocs.cfm>)

US EPA. 2003. *Strategy for Water Quality Standards and Criteria*.
EPA-823-R-03-010. August 2003.

(<http://www.epa.gov/waterscience/standards/strategy/index.html>)

US EPA. 2006. *2006-2011 EPA Strategic Plan*.

EPA-190-R-006-001. Prepublication Copy. September 2006.

(<http://www.epa.gov/ocfo/plan/plan.htm>)